Code No: **RT41013** **R13** **Set No. 1**

IV B.Tech I Semester Supplementary Examinations, February - 2019

CONSTRUCTION TECHNOLOGY AND MANAGEMENT

(Civil Engineering)

Time: 3 hours **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
*****

PART–A *(22 Marks)*

1. a) Why do projects need planning? [4]
   b) What is crashing a project in project management? [3]
   c) Explain about rear dump trucks. [4]
   d) What are the uses of scrapers? [3]
   e) List out the different types of crushers. Discuss about them. [4]
   f) Briefly explain about the safety during construction. [4]

PART–B *(3x16 = 48 Marks)*

2. a) What are the different types of floats involved in CPM? [8]
   b) Explain safety guidelines in construction activities. [8]

3. Draw a network diagram for the given activity and durations in the following table. Find out the critical path, EST, EFT, LST, LFT, total float and free float.

Description of activity	Activity symbol	Preceding activity	Succeeding activity	Duration days
Dig foundation	A	None	B	3
Place from work	B	A	C	6
Place concrete	C	B	G	6
Obtain steel	D	G,H	None	7
Cut and bent steel	E	None	F	4
Place steel reinforcement	F	E	G	3
Obatain materials for concrete	G	F,C	D	2
	H	None	D	12

[16]

4. a) Discuss in detail different factors affecting selection of construction equipment. [8]
   b) Explain in detail the procedure to calculate capacity of truck. [8]

5. a) Discuss about the hoisting and earthwork equipment. [8]
   b) Explain about utilization of rollers, dozers and scrapers in construction. [8]

6. a) Explain in detail about screening of aggregate. [8]
   b) Write about mixing and placing of concrete. [8]

7. a) Explain different types of Formwork. [8]
   b) Discuss various criteria regarding quality management systems and requirements. [8]

||''|''|''|''||